



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0514; Project Identifier MCAI-2020-01570-T]

RIN 2120-AA64

Airworthiness Directives; De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain De Havilland Aircraft of Canada Limited Model DHC-8-400, -401, and -402 airplanes. This proposed AD was prompted by a report that the epoxy primer on the internal bore of the nacelle and landing gear attachment pins was not applied, and corrosion on the internal bore of the wing rear spar attachment pins was found. This proposed AD would require doing a detailed visual inspection of the nacelle to wing rear spar attachment pins, and the nacelle and landing gear attachment pins, for any corrosion, and doing all applicable corrective actions. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd@dehavilland.com; Internet <https://dehavilland.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0514; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Deep Gaurav, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include

“Docket No. FAA-2021-0514; Project Identifier MCAI-2020-01570-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Deep Gaurav, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2020-51R1, dated February 24, 2021 (also referred to after this as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain De Havilland Aircraft of Canada Limited Model DHC-8-400, -401, and -402 airplanes. You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0514.

This proposed AD was prompted by a report that the epoxy primer on the internal bore of the nacelle and landing gear attachment pins was not applied, and corrosion on the internal bore of the wing rear spar attachment pins was found. The FAA is proposing this AD to address premature corrosion and subsequent failure of the nacelle to landing gear and nacelle to rear wing spar attachment pins, which if undetected, could lead to a single or dual collapse of the main landing gear. See the MCAI for additional background information.

Related Service Information Under 1 CFR Part 51

De Havilland Aircraft of Canada Limited has issued Service Bulletin 84-54-28, Revision B, dated January 24, 2020; and Service Bulletin 84-54-31, Revision B, dated February 21, 2020. This service information describes procedures for doing a detailed visual inspection of the nacelle to wing rear spar attachment pins, and the nacelle and landing gear attachment pins, for any corrosion; and doing all applicable corrective actions. Corrective actions include applying epoxy primer to the bore surface of the pins, a fluorescent magnetic particle inspection for any cracking, corrosion removal, reworking and part marking certain pins, and replacing any cracked or corroded pins with serviceable pins. These documents are distinct since they apply to different airplane configurations.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in the service information already described.

Differences Between this Proposed AD and the MCAI or Service Information

Where Part III of TCCA CF-2020-51R1, dated February 24, 2021, specifies a detailed visual inspection and rectification of the nacelle and landing gear attachment pins, this AD requires a re-part mark of the yoke attachment pin as specified in Part B of the Accomplishment Instructions of De Havilland Service Bulletin 84-54-31, Revision B, dated February 21, 2020.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 41 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 9 work-hours X \$85 per hour = Up to \$765	\$0	Up to \$765	Up to \$31,365

The FAA has received no definitive data on which to base the cost estimates for the on-condition actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.): Docket No. FAA-2021-0514; Project Identifier MCAI-2020-01570-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to De Havilland Aircraft of Canada Limited (type certificate previously held by Bombardier, Inc.) Model DHC-8-400, -401, and -402 airplanes,

certificated in any category, serial numbers 4001, 4003 through 4550 inclusive, 4583 through 4585 inclusive, 4587, 4588, and 4590.

(d) Subject

Air Transport Association (ATA) of America Code 54, Nacelles/pylons.

(e) Unsafe Condition

This AD was prompted by a report that the epoxy primer on the internal bore of the nacelle and landing gear attachment pins was not applied, and corrosion on the internal bore of the wing rear spar attachment pins was found. The FAA is issuing this AD to address premature corrosion and subsequent failure of the nacelle to landing gear and nacelle to rear wing spar attachment pins, which if undetected, could lead to a single or dual collapse of the main landing gear.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection and Corrective Actions

(1) At the applicable compliance times specified in paragraphs (g)(1)(i) through (iii) of this AD: Do a detailed visual inspection of the nacelle to wing rear spar attachment pins, and the nacelle and landing gear attachment pins, for any cracking or corrosion, and do all applicable corrective actions, in accordance with Part A or Part B, as applicable, of Section 3., “Accomplishment Instructions,” of the applicable service information specified in figure 1 to paragraph (g) of this AD. Do all applicable corrective actions before further flight.

Figure 1 to paragraph (g) – Service Information

Serial Numbers–	Service Information–
4001, 4003 through 4550 inclusive	De Havilland Service Bulletin 84-54-28, Revision B, dated January 24, 2020

Serial Numbers–	Service Information–
4001, 4003 through 4533 inclusive, 4583 through 4585 inclusive, 4587, 4588 and 4590	De Havilland Service Bulletin 84-54-31, Revision B, dated February 21, 2020

(i) For nacelle to wing rear spar attachment pins, or nacelle and landing gear attachment pins, as applicable, that have accumulated less than 26,000 flight cycles as of the effective date of this AD, and have been in service less than 12 years from their entry-into-service as of the effective date of this AD: Prior to the pins reaching 14 years from their entry-into-service, or prior to the airplane reaching 30,000 total flight cycles, whichever occurs first.

(ii) For nacelle to wing rear spar attachment pins, or nacelle and landing gear attachment pins, as applicable, that have accumulated 26,000 flight cycles or more as of the effective date of this AD, or have been in service 12 years or more from their entry-into-service as of the effective date of this AD: Within 4 years or 8,000 flight hours after the effective date of this AD, whichever occurs first.

(iii) For airplanes on which the actions specified in Bombardier Service Bulletin 84-54-27, dated August 11, 2017; or Bombardier Service Bulletin 84-54-28, dated August 11, 2017; as applicable, have been accomplished: Within 14 years or 30,000 flight cycles after the date of incorporation of Bombardier Service Bulletin 84-54-27, dated August 11, 2017; or Bombardier Service Bulletin 84-54-28, dated August 11, 2017; as applicable, whichever occurs first.

(2) For serial numbers 4583, 4584, 4585, 4587, 4588 and 4590: At the applicable compliance times specified in paragraphs (g)(1)(i) through (iii) of this AD, re-part mark the yoke attachment pin, in accordance with Part B of the Accomplishment Instructions of De Havilland Service Bulletin 84-54-31, Revision B, dated February 21, 2020.

(h) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using the applicable service information specified in paragraphs (h)(1) through (3) of this AD.

(1) Bombardier Service Bulletin 84-54-28, Revision A, dated April 10, 2019.

(2) Bombardier Service Bulletin 84-54-31, dated May 1, 2019.

(3) Bombardier Service Bulletin 84-54-31, Revision A, dated October 15, 2019.

(i) No Reporting Requirement

Although De Havilland Service Bulletin 84-54-28, Revision B, dated January 24, 2020; and De Havilland Service Bulletin 84-54-31, Revision B, dated February 21, 2020; specify to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method

approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or De Havilland Aircraft of Canada Limited's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2020-51R1, dated February 24, 2021, for related information. This MCAI may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0514.

(2) For more information about this AD, contact Deep Gaurav, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

(3) For service information identified in this AD, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd@dehavilland.com; Internet <https://dehavilland.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on June 23, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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